

ABSTRACT

Centering a multi-band VCO involves comparing a VCO tuning signal to a pre-established tuning signal window to determine whether to change the frequency band of the multi-band VCO. The frequency band of the multi-band VCO can be changed only when the tuning signal is outside the tuning signal window. Further, the frequency band can be changed as long as the VCO is being controlled by a frequency detector. Once the multi-band VCO achieves lock, the multi-band VCO is changed by at least one more frequency band as long as the VCO tuning signal is still outside the tuning signal window.